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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,039	07/12/2001	Gary A. Demos	07314-013001	2223
20985 7590 04/23/2008 FISH & RICHARDSON, PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022				
EXAMINER LEE, Y YOUNG				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/005,039

**Applicant(s)**

DEMOS, GARY A.

**Examiner**

Y. Lee

**Art Unit**

2621

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 8-15, 37-44, 66-73 and 88-100 is/are pending in the application.
- 4a) Of the above claim(s) 91-100 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-15, 37-44, 66-73 and 88-90 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/31/07-3/28/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.

***Election/Restrictions***

2. Applicant's election without traverse of Group II, Figure 2 in the reply filed on 6/25/03 is acknowledged.

3. Claims 91-100 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/25/03.

***Specification***

4. The amendment filed 2/26/08 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: page 14, paragraph [0040] and new paragraphs [0041] - [0042].

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-15, 37-44, 66-73, and 88-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naimpally et al (5,294,974) in view of Yanagihara (5,374,958).

Naimpally et al, in Figures 2 and 5, discloses a high-definition video encoding system having color-sensitive quantization using substantially the same method for reducing chroma noise as specified in claims 8-15, 37-44, 66-73, and 88-90 of the present invention, comprising in a YUV video image compression system using macroblocks 330 and quantization parameters during compression, including utilizing a variable quantization step size and a quantization parameter (QP) to represent a size of a step where an increase in the QP corresponds to a larger quantization step size, selecting one of reducing chroma noise during compression of a color video image 110 and achieving higher compression during compression of the color video image (e.g. B-Y, R-Y); in response to selecting reducing chroma noise, utilizing a first QP value for the Y luminance channel of a color video image for a first macroblock (e.g. Fig. 3), and utilizing a second QP value for at least one of the U and V color channels of the color video image for the first macroblock, wherein the second QP value is derived from the first QP value (col. 5, lines 41-46; i.e. B-Y and R-Y use finer QP than Y); and in response to selecting achieving higher compression utilizing a first QP value for the Y luminance channel of a color video image 110, and utilizing a second QP value 212 for at least one of the U and V color channels of the color

video image 110, wherein the second QP value 212 for the first macroblock is less than the first QP value (col. 7, line 61 - col. 8, line 5), so that at least one of the U and V color channels has finer quantization resolution (col. 5, lines 41-50) than the Y luminance channel for the first macroblock (e.g. Tables 1-3).

With respect to claims 9, 10, 13, 14, 38, 39, 42, 43, 67, 68, 71, 72, and 88-90, Naimpally et al also discloses that the second QP value 212 is determined by applying a bias value to the first QP value (Fig. 6 and look up tables 1-3); compressing the color video image (Fig. 2, B-Y, R-Y), after application of the first and second QP values, to a compressed output image 116; and decompressing the compressed output image 116 using the first and second QP values to obtain an uncompressed video image 126.

Although Naimpally et al discloses a general relationship for deriving the second QP value from the first QP value, it is noted Naimpally et al differs from the present invention in that it fails to disclose a direct numerical relationship between the two values. Yanagihara however, in Figure 6, illustrates the concept of such well know numerical manipulations wherein the QP values may be directly derived from each other.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having both the references of Naimpally et al and Yanagihara before him/her, to exploit the well know numerical relationships among the sets of quantization step sizes as illustrated by Yanagihara in the quantization method of Naimpally et al in order to have a more efficient control of the variable quantization process.

***Response to Arguments***

7. Applicant's arguments with respect to claims 8-15, 37-44, 66-73, and 88-90 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (571) 272-7334. The examiner can normally be reached on (571) 272-7334.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Young Lee/  
Primary Examiner  
Art Unit 2621